## 12V Light Dimmer

This circuit, powered by 12 vdc , functions as a dimmer.
$\mathrm{R} 1=100 \mathrm{~K} \mathrm{C} 1, \mathrm{C} 3=10 \mu \mathrm{~F} / 16 \mathrm{~V}$
R2 $=100 \mathrm{KC} 2=0.01 \mu \mathrm{~F}$, ceramic
R3 $=100 \mathrm{~K} \mathrm{T1}=2 \mathrm{~N} 4401$
R4 $=100 \mathrm{~K}$ T2 $=$ TIP32
R5 = 3K9 U1 = LM358
R6 = 3K9 L1 = Lantern Bulb
R7 $=470$ S1 $=$ On-Off Switch
$R 8=100$
$R 9=220,1 / 2$ watt
$P 1=5 K$

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